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U. S. DEPARTMENT OF AGRICULTURE . AGRICULTURAL MARKETING SERVICE



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Editor, Milton Hoffman Associate editor, Jeanne Starr Park



AGRICULTURAL MARKETING is published monthly by the Agricultural Morketing Service, United States Deportment of Agriculture, Washington 25, D. C. The printing of this publicatian hos been opproved by the Bureau of the Budget, March 18, 1959. Yearly subscription rote is \$1.50, domestic; \$2.25, foreign. Single copies ore 15 cents each. Subscription orders should be sent to the Superintendent of Documents, Government Printing Office, Washington 25, D. C.



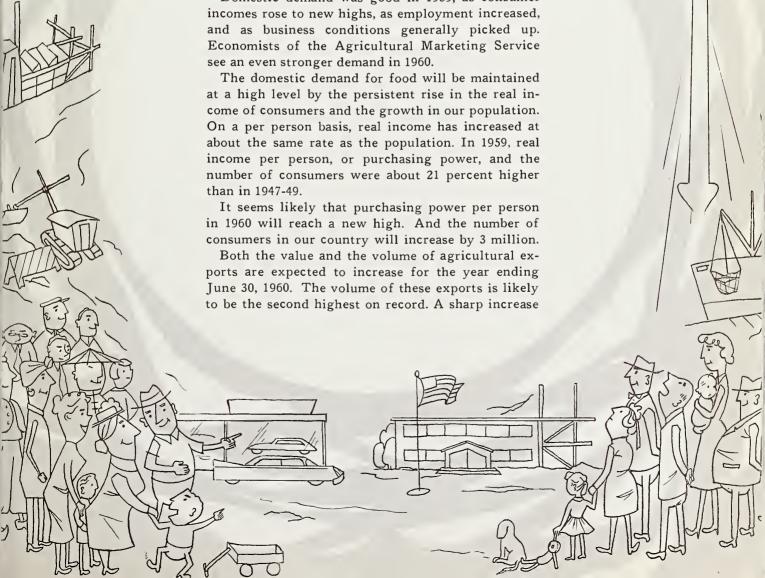
# THE DEMAND FOR FARM PRODUCTS



by Daniel W. Burch

1960 should be an even better year than 1959 for marketing food and other farm products, both at home and in foreign markets.

Domestic demand was good in 1959, as consumer



is expected in cotton exports from the low 1958-59 level. Demand appears strong for fats and oils, oilseeds, fruits, vegetables, feeds, and rice. Government programs continue to be important in maintaining high exports for some commodities.

#### General Economy

The outlook for 1960 is for higher rates of economic activity and employment than the records established just before the steel strike. From July 1959 on, the steel strike and its attendant effects brought some reductions in industrial production and employment and in the flow of income in the economy.

Overall, the declines were relatively small. Most economic indicators remained well above the levels of 1958. The strike had little impact on consumer markets, particularly the demand for food.

If steel operations are in full swing, the upward trend in the economy will continue. In fact the outlook for 1960 will be strengthened further by backlogs of demand built up during the strike.

Total consumer incomes, which in mid-1959 were some 7 percent larger than a year earlier, may increase another 4 or 5 percent by mid-1960. Even with continued substantial growth in population and the prospects that consumer prices will average slightly higher in 1960 than in 1959, AMS economists expect per capita purchasing power to increase further in 1960.

As of mid-year 1959, per capita purchasing power averaged 5 percent above a year earlier.

Ready to answer this greater consumer demand is an abundant supply of farm food products. Increased production of livestock in 1959 has brought the domestic meat supply up considerably. Cattle numbers on farms increased in 1959 to set a new record, and cattle marketings are expected to rise still further in 1960.

Hog marketings, which increased sharply in 1959, will continue to be larger than a year earlier, in the first half of 1960. They will decline during the latter half of the year if Corn Belt farmers reduce their 1960 spring pig crop as much as they previously indicated.

Egg supplies in 1960 are expected to be smaller, reflecting a reduction in laying flocks. If so, egg prices would show some improvement during the coming year.

#### **Heavy Supplies of Grain**

The grain crop in 1960 will depend mostly upon weather conditions in the coming months, but improved crop technology has increased yields over the long run. Even if the weather becomes unfavorable, there would be large supplies of such crops as wheat and feed grains because of heavy carryover stocks.

Although wheat production was down sharply in 1959, it still exceeded domestic and export use and the wheat surplus will increase still further. Also, by the end of this marketing year (October 1, 1960), carryover stocks of feed grains probably will total 80 million tons, 13 million tons more than in 1958-59. Carryover stocks of cotton may hold steady with domestic and foreign outlets about equaling in-

creased production.

Total tobacco production was 5 percent above 1958, but the carry-over from the year before, which was nearly double the amount of production, dropped 4 percent.

In contrast, supplies of edible fats, oils, and oilseeds in 1959-60—production plus carryover—will be record large, nearly a tenth above peak disappearance and 5 percent above the year before.

Cottonseed oil output is expected to rise 20 percent; lard production, around 8 percent. There'll be little change in the soybean oil output during 1960. It'll stay near last year's record level. Butter production, however, is expected to go down slightly for the fourth consecutive year.

During the early period of 1960, supplies of fresh vegetables may be moderately smaller than in the first 6 months of 1959. There'll also be a slightly greater supply of frozen vegetables and about the same volume of canned vegetables as last year.

From now until mid-1960, total supplies of fresh and processed fruits are expected to be moderately larger than in the same period of 1958-59.

Even if milk production should increase a little in 1960, the supply of milk products per person in 1960 will be under the level of 1959. The volume of dairy products sold by farmers in 1960 is expected to be at record levels.

Cash receipts, however, will increase to a record high. Although these will be offset in part by higher production costs, net income from the dairy enterprise may be up a little in 1960.



The author is an analytical statistician in the Agricultural Economics Division, AMS.



by Kenneth E. Ogren

ARKETING Costs Up from a Year Ago; Further Increases in Prospect for Next Year."

This was a familiar headline in

This was a familiar headline in the 1950's.

But what about the new decade? What are the prospects for 1960?

Again this year, further increases in food marketing costs are entirely probable. However, the amount of increase is likely to be smaller than in several years of the fifties.

During the past decade, the spread between what consumers paid for their food products and what farmers got increased each year. At the beginning of the period, it cost \$470 (annual rate) to move a typical annual market basket of food products from U.S. farms to urban consumers. By the close of the decade, this cost had risen to about \$650, an increase of more than a third.

(The annual market basket is the average supply of domestic foods [excluding fish and imported food] purchased at retail stores by an urban worker family during an entire year.)

As could be expected, the rise in the cost of marketing foods raised the retail-store cost of market basket foods. In early 1950, these foods

The author is Director of the Marketing Economics Research Division of AMS.

retailed at around \$875 (annual rate); by the end of 1959, their cost ran close to \$1,050.

How much it will cost to market foods in the next decade will depend upon the answers to the following questions.

- (1) Will the general level of prices and costs in our economy continue to rise and, if so, by how much?
- (2) Will food marketing firms continue to increase the efficiency of productivity of their operations and, if so, by how much?
- (3) What additional services, if any, will the marketing system perform in getting products from the farm to the consumer?

The answers to these questions, together with the trends that have developed over the past 10 years, provide valuable clues for appraising the outlook for food marketing costs.

In the 1950's—as well as in the 1940's—the rising price level was the most significant factor in pushing up food marketing costs. Prices to the nonagricultural economy largely determine trends in costs of processing and distributing food products. Many of the commodities in the wholesale price index (such as fuels, electric power, containers and supplies, machinery and equipment) are items bought by food marketing firms. Long-term trends in food marketing costs tend to

parallel rather closely the Bureau of Labor Statistics' Wholesale Price Index for all commodities other than food and farm products. During the fifties this index rose almost 30 percent.

In addition, costs of marketing food are strongly influenced by changes in labor costs, rents, taxes, and interest charges which also are closely related to general price trends. Prospects for decreases in these costs are not especially bright. Upward pressures on wages and fringe benefits, taxes, utilities, and other goods and services bought by food marketing firms seem greater than the downward pressures.

The key to how much, if any, these costs increase in the sixties will be given mainly by the trend in the general price level. World economic and political developments will have a major influence on this. During the past decade the sharpest rise in the general price level and in food marketing costs came during the Korean conflict.

The rise in price and wage levels is for the most part outside the control of food marketing firms. However, the efficiency with which marketing firms use the labor and goods and services that they buy determines how much if any marketing costs go up.

Because labor costs make up half or more of the total costs of marketing many food products, changes in wage rates often are the most important factor affecting total marketing costs. In January 1950, hourly earnings of employees of food processing, wholesaling, and retailing firms averaged \$1.30. In January this year, these earnings will average around \$2.10—an increase of over 60 percent in a decade.

The increase in actual labor costs per unit of food product marketed has only been about half as large as the rise in hourly earnings, according to available AMS statistics. This was possible only through increasing the output per man-hour of labor used in food marketing. This higher productivity, achieved mainly through investments in plant and equipment, has been in part offset by higher maintenance, depreciation, and interest costs.

The increased efficiency of our food marketing system can be illustrated in yet another way. The volume of food moved through the marketing system increased by about a fourth in the past decade. The number of persons required for the job increased by only about 10 percent despite additional services that are not fully reflected in the measurement of volume changes.

#### New plants and equipment

During the fifties, marketing firms made extensive investments in new plant and equipment designed to reduce manpower needs and increase the efficiency of their operations. The full effects of some of these technological improvements will be realized more in the coming years than they have so far. Other new technologies to keep down unit labor costs also will be introduced in the coming decade, and there will be a further adoption of volume buying and selling among marketing firms.

The third factor affecting the costs of marketing food is the volume of services provided by the marketing system. The total costs of marketing food products have

increased much more than the rise in "unit" marketing costs because of an increased volume of products marketed and more services performed with each "unit" of product. In 1950, it cost \$24 billion to market domestic farm food products to U.S. consumers. By 1959 this total had risen to over \$38 billion.

The volume of products marketed has increased somewhat faster than our population in part because of the actual decline in numbers of people living on farms. In the past 10 years, farm population declined by about a fifth while nonfarm population was up by a fourth. Thus, an increasing proportion of our population is wholly dependent upon the marketing system for their food supplies. These trends are likely to continue during the coming decade.

#### Processed foods for farmers

Also, people on farms are buying more processed foods and buying a larger portion of their total food. This trend, too, should continue as farmers become more specialized in their production.

In general, homemakers are buying more and more packaged, processed, ready-to-cook, and ready-to-serve foods. These extra services add to the labor and other costs required to move foods from the farm to consumers. In some cases, however, the extra costs of processing are often offset by other economies such as reductions in waste and spoilage and costs of shipping perishable foods. Given an expanding economy, higher real in-

comes, and continued job opportunities for women away from home, the expansion of convenience foods is likely to continue.

The prospects for the sixties add up something like this. With a prospective increase in volume of products handled by the marketing system equal to or larger than that of the past decade, total costs of marketing food products can be expected to go up. Services performed per "unit" of product likely will continue to increase but the effects of these added services probably will have a relatively minor effect on total marketing costs.

At the start of the sixties, pressures exist for increases in "unit" marketing costs. Further increases in wage rates and other costs to marketing firms seem likely. Any projection to the end of the sixties would be highly speculative. But with no major push on price inflation, such as the Korean conflict of the early 1950's, increases in unit marketing costs could be held to a lower rate than in the past decade.

## The big challenge for marketing

The big challenge in food marketing is: Can higher costs of inputs be offset by greater output per unit of input? In the fifties, marketing spreads for poultry and eggs and some processed fruits and vegetables were kept at about a constant level despite the advance in cost levels. Can these and others hold the line in the sixties or even reduce costs while maintaining or improving the quality of food and services provided?

#### FRUITS AND FRUIT JUICES FOR SCHOOL LUNCHES

U.S. public schools purchased and received more than \$36 million worth of fresh, frozen, canned, and dried fruits and fruit juices during the 12 months between July 1957 and June 1958.

When averaged out on a per child basis, this came to \$1.70 for each of the somewhat over 21 million pupils in these schools.

Canned items represented nearly four-fifths of this amount. Fresh fruits accounted for almost all of the remainder. Dried and frozen fruits totaled only 3 percent.

About 15 percent of the value of fruits and fruit juices delivered to schools was donated directly by the Government. The balance was purchased locally by the schools.

# HAULING Farm Products to Market by Piggyback

by Joseph R. Corley

A DECADE AGO, few people had heard of hauling loaded truck trailers on trains. Yet in the first 10 months of 1959 more than 350,000 carlots of U.S. products moved to market in highway trailers loaded on railroad flatcars.

That's not all. Fifty-five railroads now offer this type of "piggyback" bervice, and 44 of these are hauling refrigerated trailers suitable for fresh farm products.

Meats and meat products and dairy products are moving regularly from the Central States to eastern markets—Washington, D.C., Philadelphia, and New York City. In the West, dried peas and beans and fresh fruits move from the Mountain States to the Pacific Coast, and import items such as coffee and bananas go by piggyback from the Pacific Coast to inland points.

Fresh fruits and vegetables—tomatoes, corn, carrots, cabbage, pineapples, citrus, and peaches—are being shipped in trailers-on-flatcars from the South Central States into St. Louis, Chicago, Cincinnati, and surrounding areas.

Farm commodities, however, represented less than 10 percent of the 1959 piggyback shipments.

To increase the volume of agricultural products during 1960—and the years ahead—railroads are extending piggyback service deep into agricultural areas. And, they are pooling together to provide better equipment for this expanding traffic.

The author is a transportation economist in the Transportation and Facilities Research Division of AMS.



Many railroads have redesigned their flatcars for faster trailer loading and unloading. They also have installed shock absorbers to lessen the chance of cargo damage.

For the shipper of perishables, the advantages of piggyback transportation are many. It offers some of the best features of both rail and truck transportation, skips many of the disadvantages, and comes up with added benefits of its own.

Uniform temperatures are maintained throughout the trip and after—until delivery at the warehouse. Damage is reduced because produce gets a smoother ride and, in many cases, fewer handlings. The entire movement of produce by piggyback is expedited.

Delivery time on shipments sent by piggyback may be cut as much as 24 hours on a 1,000-mile haul. Some railroads include piggyback cars on passenger trains; others operate special trains or include piggyback units at the head of trains hauling perishables. In this way, switching time is reduced, and farm foods move more swiftly to market.

The main advantage of piggyback service to the railroads is that it frequently provides a way of recapturing tonnage previously lost to the motor carriers or obtaining new tonnage.

From the standpoint of the motor carrier, advantages from piggyback operation take the form of savings over conventional truck transportation—through lower maintenance costs, less driver expense, and the

elimination of fuel-use and weightdistance taxes.

Then, too, there's no need to worry about the various trailer height, weight, or length regulations of the many States through which the trailers move on trains.

Flatcars now range in lengths up to 85 feet, can accommodate two 40-foot trailers with forward mounted refrigerator units.

Most railroads have inspection points at all major terminals equipped to service refrigerated trailers. Hauls up to 750 miles, however, usually need no attention. Mechanical refrigeration equipment can carry enough fuel for 24 hours' operation. For longer shipments, moving over more than one line, arrangements are made between the cooperating railroads to service the cars through their own facilities or the facilities of their subsidiaries.

The generally improved piggy-back operation, together with the extension of the service into the South and Southwest, should result in a larger volume of farm products moving by piggyback in 1960.

In the past, the volume of general commodities shipped by piggyback has increased rapidly. Between 1955 and 1958, piggyback business seared 65 percent. For the first 10 months of 1959, it was 53 percent greater than the same period in 1958. What increases will be made in 1960 remain to be seen. However, it is likely that more farm products will be moving to market by this method of transportation.





# MARKETING CHANNELS ARE GETTING SHORTER

by Forrest E. Scott and Willard F. Williams

TODAY, marketing channels for many of our farm products are more direct than ever before—except in the very early history of our country.

Many large processing companies in the baking, milling, canning, dairy, poultry, and meatpacking industries now sell directly to retail outlets. Estimates from trade sources indicate that 90 percent of the chains having 11 or more units buy directly from processors, country assemblers, and farmers.

The marketing channel is far shorter than it was 100 years ago when farm products typically were handled by 4, 5, or even a larger number of intermediaries between the time they left the farmer and reached urban consumers.

But even at that time, forces were beginning to develop that would shorten marketing channels for farm foods.

Between 1880 and 1930, large food

processing companies were formed. These established branch houses in the larger cities to sell directly to retailers.

Then, after World War I, retail food chains began to integrate wholesaling functions with retailing, buying directly from processors, country assemblers, and farmers.

Direct-buying increased as the retail food chains gained a larger share of the total grocery-store sales.

Many independent retail stores and small chain-store companies formed cooperative groups owning wholesale organizations. Some wholesalers organized voluntary chains of retail stores, providing them with many of the advantages of central buying.

Along with these marketing changes, several developments occurred that facilitated direct buying.

These were:

- An improvement in motor trucks, highways, and refrigerated transportation equipment.
  - Improvements in long-distance

communication devices.

- The widespread use of USDA grade standards by which the physical characteristics of products can be accurately described.
- The wide availability of market news.

These developments caused many segments of the food industry to alter their marketing practices. Farmers are now selling more slaughter livestock near the point of production than they used to. This is more true for hogs than other species.

Along with this change, there is an expansion in large-scale live-stock producing units. For example, West Coast feedlots with volumes of 1,000 to 30,000 head now account for a major portion of the cattle fed in that area. Elsewhere, specialized farms are producing 500 to 2,000 or more hogs each year. These, too, are expanding both in volume and in numbers.

Large quantities of poultry are being processed in the same area in which they are produced. And, much of the fresh fruit and vegetable sales at country shipping points go directly to retail outlets.

The authors are agricultural economists in the Marketing Economics Research Division of AMS. This story is a condensation of an article that was published in the October 1959 issue of THE MARKETING AND TRANSPORTATION SITUATION,

Compare this with previous marketing patterns.

A large part of the meat animals slaughtered at federally inspected packing plants in the early 1920's—90 percent of the cattle, 86 percent of the calves, sheep, and lambs, and 77 percent of the hogs—were bought from terminal markets.

Most of the meat animals handled at these markets were consigned by producers to commission men who sold them to packers. Country dealers who bought from farmers also consigned to terminal markets. Large numbers of stocker and feeding animals also were consigned to terminal markets.

As late as 1939, about half of the volume of dressed chickens handled by retailers came from city processing plants. (Three to five marketing agencies participated in the movement of poultry from farm to retail.)

Also since 1939, the volume of fresh fruits and vegetables moving through terminal markets has increased little despite a steadily growing population. Many retail chains prefer to do their own buying direct at country points; many small city markets now receive truck shipments directly from producing areas rather than from terminal markets in nearby metropolitan areas.

### Advantages of direct marketing

For each of these producers and buyers, there are definite advantages in direct marketing.

Livestock producers who market their animals at frequent intervals near the point of production have greater flexibility in livestock marketing.

Radio market news reports help farmers select their market. By choosing markets close at hand, the producer avoids long-distance shipping charges, can afford to sell at prices lower than those offered at terminal markets.

He is often also able to agree on a price before the livestock leaves his farm. Because of the shorter trip to market, shrinkage losses are reduced.

In the poultry industry, too, direct buying and selling have become easier. The establishment of large processing firms in the production areas has shortened the marketing route. Several intermediaries are bypassed and poultry moves—already processed—from the producing to the consuming areas.

#### Concentrated poultry production

Nearly all of the chickens and turkeys sold in retail stores today have been raised in concentrated producing areas. They have been processed in the same area at less expense than at city plants.

Likewise, a large part of the egg supply is graded and cartoned at country plants. In some of these plants, eggs move quickly along automatic packing lines and emerge ready for the retail shelf. Many of these assemblers have contracts for both the production and sale of the eggs. Today, there are some retail chains that buy direct from egg producers, bypassing wholesalers.

A part of the fresh fruit and vegetable crop also moves to market without benefit of city wholesalers or dealers. Direct purchases of fresh produce from country shippers and farmers by corporate chains now account for about 30 percent of the total receipts of these products in 17 major cities. Twenty-five years ago, only 15 percent was purchased direct.

Chains purchase fresh fruits and vegetables either on a contract basis or through their own salaried buyers at the point of production. Some smaller chains use brokers at shipping points.

In any event, the marketing channel is considerably shortened. Direct buying bypasses at least one or two middlemen—city wholesalers or jobbers.

Terminal markets still play a major role in the marketing of fresh fruits and vegetables. Both large and small chains do some buying from city dealers. Most of the independents, restaurants, hotels, and institutions do all their buying from city dealers.

The trend toward direct marketing, however, is expected to increase in the years ahead. Retail food organizations are growing in size, and, as their volumes increase, they tend to bypass wholesalers and take their business directly to the manufacturers, country assemblers, and farmers.

One of the principal reasons why chains have adopted direct buying is that it gives them greater control over their supply. Since they buy in large lots, chains can arrange with manufacturers to make the type of product they specify. Buying from manufacturers and producing area shippers frees the chains from dependence upon wholesalers for the type of product in the volume needed at the time that it is needed.

Then, too, direct buying usually reduces procurement costs. The number of bargaining transactions and ownership transfers is reduced, and the wholesalers' commissions and brokers' fees are eliminated.

Because of these many advantages, chains are expected to expand their direct marketing operations, and more independent organizations—as they grow in size—are expected to turn to this method of buying.

There are some chains today that are large enough for efficient direct buying that do little or none of it. Very often, cooperative and voluntary chain stores buy some of their food directly, yet continue to buy other items—usually their fresh produce—through wholesalers. Were these firms to change over completely, direct buying would expand considerably.

#### Affect on wholesalers

But what about the wholesaler—the forgotten man in the direct marketing operation? How has he been faring?

Not too badly. Sales of food (continued on page 20)





Research is constantly being conducted to find better ways to bring farm foods to market.

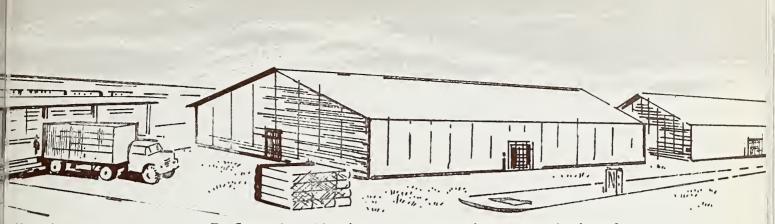
This is the cab of a refrigerated test truck. The many gauges, switches, and meters were used recently to record the amount of heat that penetrated through the insulated trailer walls during a trial run along the Ohio Turnpike. Experiments such as this give researchers more information about the degree of protection required to keep perishable produce wholesome while enroute.

# PALLET BOXES AT



Another use has been found for the versatile pallet box. During 1960, apples and other commodities will be going to market in expendable corrugated and semi-expendable wooden pallet boxes.

The advantages of this type of marketing operation are many. Such shipment offers economies in both packing and handling. Pallet boxes are easily loaded and unloaded with modern machinery.



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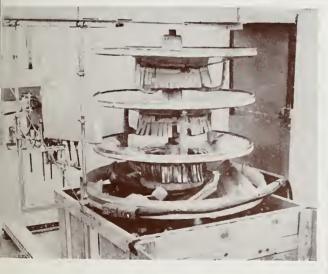
ew York City.

By September 1960, six new cotton warehouse areas (each made up of six storage compartments) will be built in western Texas, New Mexico, and California. Designed by the Transportation and Facilities Research Division of AMS, they will be the first of their kind.

The warehouses feature plenty of space for machinery to operate and greater convenience in the location of loading facilities, water tanks, parking facilities, machine shops, and offices.

# **PMENT · PACKAGING**

# RM AND MARKET



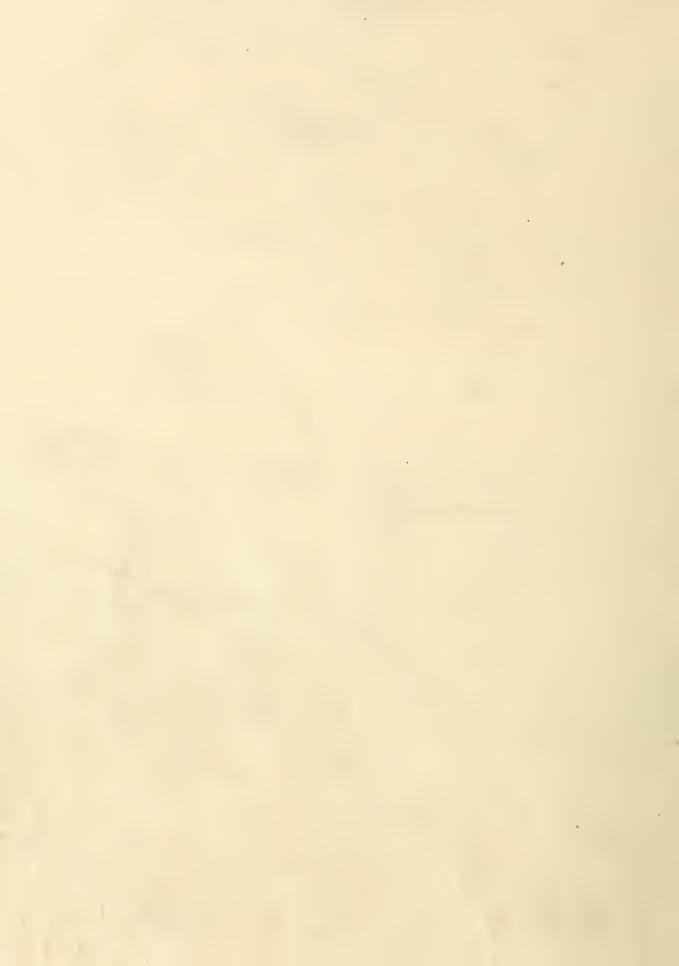
A lot more bruise-free apples will be loaded into ballet boxes in 1960 with this efficient, AMS-lesigned pallet box filler.

Instead of falling directly into the box, the fruit s fed onto padded disks that ease it into the conainer. As the box is filled, a hydraulic lift raises he filler. Retarding gates hold back flow of apples until another box is positioned.



1960 will see cauliflower producers prepackaging their product at the point of production.

AMS researchers estimate that if all of the cauliflower shipped from California to New York and Chicago were fully trimmed, overwrapped with cellophane and packaged in fiberboard master containers, marketing costs could be reduced \$500,000 a year. Trimming alone would cut shipping costs 73 cents per 100 pounds on cauliflower moving from California to the New York City market.





Spacious, up-to-date marketing facilities—like the new wholesale food centers at Philadelphia and Atlanta—make the marketing of farm products easier, less expensive. Both of these markets were modeled after design, recommended by Agricultural Marketing Service.

Among current projects is a market for New York City. Improved facilities there would save \$10 million a year.

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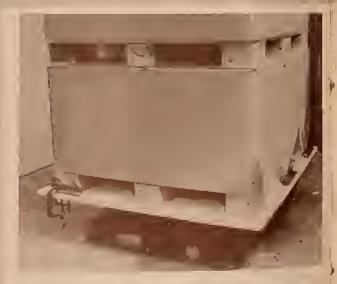
# FACILITIES · EQUIPMENT · PACKAGING



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# PALLET BOXES AT FARM AND MARKET



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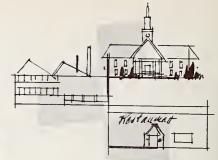
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# MARKETING Farm foods in the



1960%

by Robert M. Walsh

THE BUYING of food products and services may exceed \$100 billion by 1970—nearly \$30 billion more than in 1959.

Much of this phenomenal increase will result from a growing population and a rising per capita income.

Of course, there are many other reasons—the farm to city movement, more working women, more away-from-home eating. But more people with more money to spend is the chief reason.

Higher incomes result not only in slightly larger food purchases, but in a different type of purchase. The housewife who has plenty of money will add more meats, dairy products, fruits and vegetables to her shopping list and turn more frequently to the frozen food counter, the bakery, and the stocks of ready-to-cook items.

In answer to this growing consumer demand for more convenience foods and for new and different products, the food industry is spending nearly \$100 million a year in product research. About a third of the food store volume today comes from foods that were not even on the market a dozen years ago. This trend will continue into the 1960's.

As it is, about three-fourths of all foods are processed or manufactured in some way. In addition, increasing proportions of the fresh

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fruits and vegetables are being trimmed, washed, and prepackaged in bags, boxes, or overwrapped trays.

Two decades ago, scarcely 3 percent of the fresh fruits and vegetables were consumer packaged. In the 1960's we may expect half or more of our fresh product to be offered at retail in prepackaged form. This trend is in keeping with the need to speed up self-service in stores and minimize the time spent in home food preparation.

Frozen foods also carry forward this basic aim toward quicker service and more convenience. Frozen vegetables lead the list in volume and account for nearly a third of the 5-billion-pound total.

Although frozen vegetables reached a temporary peak in 1956-58, growth of our urban population will bring a further expansion in frozen vegetable output in the years ahead.

Similar trends are evident for frozen fruits, which are about half as large as frozen vegetables in volume.

Output of frozen juice concentrate, on the other hand, showed undiminished growth up to the time of the Florida freeze in 1957-58. Frozen poultry reached its peak in 1955; since then volume has diminished slightly, probably because of the excellent consumer response to chilled broilers and fryers.

Frozen meats, while increasing in volume over a 20-year period, apparently have not achieved early expectations and account for less than 10 percent of the total frozen food pack.

Frozen seafoods, however, increased 40-fold in a period of 10 years, and frozen prepared foods such as precooked pies and cakes and complete dinners increased 27-fold in the same period. Each of these items represented a tenth or more of the total pack of commercially frozen foods in 1958, and each is likely to show substantial gains in the sixties.

Other easy-to-prepare items also are gaining in popularity. Stores are selling—and people are buying—a wide variety of precooked, heat and serve foods.

Instant mashed potatoes, broccoli au gratin, sliced meats, smoked turkey, and chestnut flavored chicken are being offered, some in portioned boilable bags for individual servings.

Orange juice crystals that can be reconstituted into a juice are a distinct possibility in the near future.

As the food industry undergoes these many changes in the processing and packaging of its product, the retail stores that handle these items also are changing.

While supermarkets tend to grow larger and to carry additional lines of food and nonfood goods, bantam stores are springing up in various areas. These stores specialize in quick, round-the-clock service. Though the number of items offered is not large, it includes those in heavy or frequent demand.

Yet, despite the advent of the bantam store, the total number of



Away-from-home meals cost the average household 18 percent of its faad budget in 1955. As incomes go up and more people move from farm to urban areas, this percentage is expected to increase.

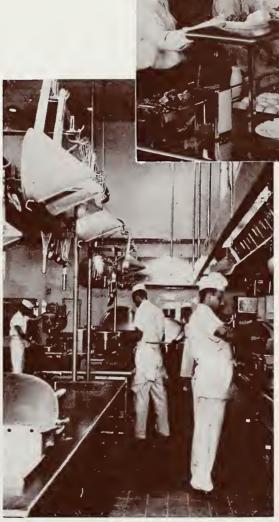
food stores in this country is still on the decrease. This trend is likely to continue into the 1960's.

But much of our farm food production reaches the consumer through channels other than the retail market. Restaurants, cafeterias, hotels, employee feeding services, schools, and dining cars also sell food. These outlets, too, have shown marked increases in volume in recent years.

The continued migration from farm to factory, shop, and office has accounted for much of this increase. So has our rising per capita income. Household survey data show spending for away-from-home meals averaged 18 percent of the total food budget in 1955. And this percentage is expected to increase, rather than decline.

High-income families tend to eat away from home more frequently than others, but students and workers now find meal service more conveniently at hand than in earlier years. Factory in-plant food services in 1956, for example, procured an estimated \$260 million worth of food. The value of food currently used by public elementary and secondary schools runs close to \$600 million annually. Further expansion is anticipated in both of these outlets as well as in other away-fromhome eating establishments.

Total consumer expenditures for food and food services in such eating places, which would be \$12 to \$13 billion in 1960 at the present 18 percent level, may increase a fourth or more by 1970.



Cansumers will spend between \$12 and \$13 billion in 1960 far food and food services owey fram home.

Nearly \$600 million worth af foad is used annually in public elementory and secondary schools. Marketing afficials onticipote further exponsion.

# SHIFTS IN GRAIN

# TRANSPORTATION PATTERNS

From production areas of the Midwest, more grain is moving to market by motortruck, by barge, and by Seaway

by Robert C. Haldeman

MORE grain moving to market by truck, barge, and Seaway ... a general broadening of consuming areas for Midwest surplus grain production . . . and the lowering of rail transportation rates for certain grains moving from and to certain areas.

These are the most recent trends in the grain industry. Together, they have brought about a dramatic shift in grain transportation patterns.

Markets now extend in all directions from the Midwest. Grain producers have found new or expanded markets in the broiler and livestock

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industries of the Southeast, the giant cattle feedlots of the West and Southwest, and the large-scale egg-producing enterprises scattered across the country. And, they are shipping more of their grain to these markets by trucks and barges—often at considerably lower rates than rail charges.

Railroads have followed these changes closely but they have not as yet handled a major portion of the new business to new markets. Also, they have not maintained their share of shipments to established markets—Minneapolis, St. Louis, Chicago, Toledo, and Duluth-Superior.

Truckers, who in 1954 hauled less than 6 million bushels of grain to

Minneapolis, had boosted their volume to 50 million bushels by 1958. To St. Louis, grain shipments by truck rose from 16 to 36 million bushels in the same period.

Truck shipments to Duluth-Superior for the first 10 months of last year totaled 19 million bushels of grain, about four times the volume during the whole of 1958.

Grain movements to markets elsewhere in the Nation have provided much the same story. Eighty percent of all direct truck and rail shipments from country elevators in the North Central States to southeastern markets went by truck. Fifty percent was trucked to the southwestern States, 56 percent of the total to the West, and 30 percent to the East.

To cities on commercially navigable inland waterways, truckers have again taken a cut of the railroads' business. To Chicago, rail volume declined from 75 percent of total grain receipts in 1954 to 61 percent in 1958. To Toledo, the decline was from 91 to 81 percent; to St. Louis, from 73 to 60 percent; and to Minneapolis-St. Paul, from 98 to 86 percent.

While 20 percent more grain was shipped to these markets, rail receipts rose only 3 percent.

Railroads also have lost out in the movement of grain beyond these inland ports. Much of the grain moved by truck to river elevators

Grain movement along inland waterways has increased substantially in recent years. Barged grain volume on Tennessee River, for example, has gone from 3 million bushels in 1942 to 62 million in 1958.



AGRICULTURAL MARKETING





By truck and by rail, grain maves fram the praductian areas of the Midwest ta Seaway parts. Deep-water vessels, plying the Great Lakes-St. Lawrence water route, had hauled 100 millian bushels af inspected U.S. grain by Octaber 31, 1959. Much af this grain was shipped directly ta markets averseas.

then went on to consuming areas by barge.

Barge shipments from the Minneapolis market increased from 19 million bushels in 1954 to 54 million in 1958. There also were significant increases in barged grain receipts at Chicago and New Orleans.

The growth of the poultry and livestock industries in the south-eastern States has been paralleled by the growth of grain transportation on the Tennessee River. From about 3 million bushels in 1942, barged grain volume on the Tennessee increased to 37 million bushels in 1957 and to 62 million bushels in 1958. Traffic through September 1959 exceeded that for the first 9 months of 1958.

It was, however, the opening of the St. Lawrence Seaway last April that brought the greatest change to the grain transportation industry. Much of the export grain that had moved by lake to Buffalo, by rail to North Atlantic ports, and by ocean vessel to overseas markets last year moved directly abroad from lake ports.

Deep-water vessels, plying the Great Lakes-St. Lawrence water route, had hauled 100 million bushels of inspected U.S. grain by October 31, 1959. From May through September 1959, rail carload grain receipts for export at North Atlantic ports declined over 41 percent for the 5-month 1958 period.

To meet the increased competition of trucks, barges, and Seaway ships, the railroads are reducing both domestic and export grain rates. Each reduction is aimed at regaining traffic between specific origins and destinations, on specific grains hauled by competing carriers.

Truck and barge competition to and along the Mississippi and Ohio Rivers to southeastern markets is now being challenged by reduced rail rates. Example: The cost of moving corn from Evansville, Ind., to Atlanta, Ga., was cut from 58 to 41 cents a hundredweight.

Last September, grain rates were lowered to meet truck competition from points in Minnesota and South Dakota to the Minneapolis market for subsequent movement beyond.

Export rail rates on grain moving from selected points along the Missouri River and in Iowa and Minnesota to ports on the Great Lakes also were cut. From Omaha to Chicago, charges went from 32.5

cents per 100 pounds to 27 cents.

Similarly, export rail rates were recently reduced from points in Missouri and Illinois to Gulf Coast ports. The rate on corn, for example, from Salem, Ill., to New Orleans has gone from 36 cents per 100 pounds to 31 cents.

To meet barge competition to the Gulf and Seaway competition on export grain movements, eastern railroads reduced their grain export rates from Illinois, Indiana, Ohio, and Michigan to North Atlantic ports. These reductions were up to 20 percent and provided for routing via Toledo, Buffalo, and other established markets.

On lake shipments to Buffalo, railroads operating east of that port now also offer reduced export rates to North Atlantic ports.

Numerous other railroad and shipper proposals for reduced rail grain rates are still being considered. How much these rate reductions will increase the railroads' grain business cannot be forecast at this time. But, without doubt, there will be some increases—the extent depends upon the degree to which other carriers may again undercut rail rates.

# **Improved Marketing Aids** RURAL COMMUNITIES





Anson County, N. C., formers, guided by Rural Development Program, took up cucumber growing, have sold 12,000 bushels.



With encouragement and oid of Rural Development workers in Franklin Pari La., and Bertie County, N. C., businessmen built these 2 new morketing faciliti



creoted co-op in July 1958. About 900,000 pounds sold first year.

by Joseph C. Doherty FARM MARKET researchers and others concerned with more effimarketing. Foyette County, Ala., sent first shipment of melons through newly

Producer ossociation in Chesterfield County, S. C., made egg production o million dollar business.



cient marketing of farm products may be overlooking a unique opportunity to learn what happens when communities with many small, lowproduction farms launch a drive to improve incomes through better

These communities are taking part in the national Rural Development Program, now going forward in some 200 counties in 30 States. Farm, business, and other local leaders guiding the program in such communities have turned to farm market improvement as a practical first step in getting more income on small farms.

They've formed marketing cooperatives, financed and built new market facilities, and set up com-

The author is an information specialist in the U.S. Department of Agriculture.

munity-sponsored farm markets selling to tourists. Many of these projects are already producing more income for farmers.

An outstanding example is the new Bertie County, North Carolina, vegetable packing and shipping company. Businessmen members of the county Rural Development Committee took the lead in forming the company and selling stock.

Extension Service workers assigned to the North Carolina Rural Development Program supplied technical information on area market trends. They also helped promote countywide interest in the project. And they assisted farmers in producing more of the right quality products for the new market.

The Bertie market, which is operated as a profit-making business by a hired manager, cost about \$70,000 to build and equip. Last year, however, some \$140,000 worth of sweetpotatoes and watermelons were marketed through the enterprise. As the new market continues to expand, it will be an increasing force in the county, promoting crop diversification and quality products.

Commenting on this project before a national meeting of Rural Development leaders, Dr. Brooks James of North Carolina State College observed:

"In one year's time, farmers and businessmen in the county were able to develop plans and produce and market 283 truckloads of watermelons and 30,000 bushels of sweetpotatoes. This was the first time these crops had been produced commercially on these farms. Inherent in the success of this program was the joint effort in developing a market and encouraging good productive practices."

Other States taking part in the Rural Development Program report similar achievements.

A new farmers' marketing cooperative was formed in Berkley County, South Carolina, last year. At the request of farmers, the local development committee took the

lead in setting up the co-op. Extension workers and vocational agriculture teachers assisting the committee did much of the actual organizing.

Shortly after the Rural Development Program got started in Chesterfield County, South Carolina, farmers organized a poultry producers' association. The group has spearheaded what amounts to a production revolution in the county.

Chesterfield County farmers had some 8,000 laying hens when the association was formed. The number has now grown to 143,000. Gross income has gone up well over a million dollars as a result. Parallel developments in the county are construction of two mills mixing poultry feed and full-time employment of 80 people in the growing poultry industry.

In a four-county area of Michigan's Upper Peninsula, where a "rural resource development program" is underway, farmers joined together for the first time to hold a feeder calf sale. The second annual sale in 1958 grossed \$57,000. Net returns were higher than in previous years, when farmers sold their animals wherever they could.

Additional market opportunities have also opened up in other Rural Development areas. Tippah County, Mississippi, has a new grade-A milk processing plant. Outlets for timber—the most important crop in many RD counties—are being expanded wherever possible. West Virginia has been working to improve quality of products coming off the small farms for market. Program leaders in Ouachita County, Arkansas, have underway a successful cucumber production and marketing operation.

Secretary Benson's latest report on the program (September 1959) cites a total of 60 such marketing projects in 44 RD counties.

Rural Development is a catalyst, stimulating local action to improve incomes. The program doesn't produce miracles. Some market projects started with high hopes, have turned out poorly. In one county, for example, a cooperative community-wide market selling farm produce to tourists failed after a few years of operation because operators on small farms couldn't supply quality products. In some cases, expansion of the grade-A dairy business is hampered by big problems of financing and management on small farms.

Whether a success or failure, all marketing projects underway in RD counties should be of interest to farm market specialists. Problems of market financing, organization, transport, and ultimate success in higher incomes where it counts—on farms—are all involved in this work.

The importance of market improvement in low-income farming counties was summed up by Rural Development Program leaders following a recent meeting:

"There is a need for high-quality farm production and orderly marketing to meet the demands of a new national system of marketing agricultural commodities."

Rural Development counties are now taking steps to meet this need.

Growing cucumbers brought this Arkansas farmer \$700 more income. Here he talks to local dealer.



# POULTRY PRODUCTS INSPECTION ACT

# MARKS FIRST ANNIVERSARY

by Frank E. Blood

IN ITS first year of operation, Federal poultry inspection under the Poultry Products Inspection Act has certified nearly 5 billion pounds of poultry and poultry products as wholesome and healthful food.

Since January 1, 1959, all U. S. poultry processing plants engaged in interstate commerce have operated under Federal regulation. On that date, PPIA became effective.

In 1957, the last full year before the PPIA became at least partially effective, slightly more than 1½ billion pounds of poultry were processed under the U. S. Department of Agriculture's 30-year-old voluntary poultry inspection program. At the end of that year, 353 plants were operating under the voluntary program. They were staffed with 537 Federal poultry inspectors.

Now 740 plants, staffed by 1600 inspectors, operate under Federal poultry inspection. Of these, 550 are slaughtering and eviscerating plants which are operating under PPIA mandatory inspection and 190 are "further processing" (such as canning and packaging) plants which are paying for and using the voluntary inspection program. Further processing plants must, if they operate in interstate commerce, be approved as to sanitation, facilities, and operations, but they are exempt from the continuous supervision provisions of the PPIA.

The importance of poultry inspection as a consumer health protection measure has been widely recognized during the past year. Eighty-five slaughter and eviscerating and 75 further-processing plants now restricted to intra-state commerce have indicated that they will

be applying for inspection service sometime within the next year. Many retail stores have adopted a policy of selling only inspected poultry.

The poultry inspection job, as administered by the Poultry Division of USDA's Agricultural Marketing Service, starts with lot-by-lot check-ups on live poultry as it arrives at the plant and carries through processing to the packaging and labeling of the finished product.

Inspectors check to make sure that sanitation requirements of the law are being met and, most important, they examine each carcass as it moves down the processing line. Any that do not meet the standards for wholesomeness are condemned and destroyed for food purposes.

This condemnation not only protects consumers, but also, indirectly, is of benefit to the poultry producer and processor. A heavy condemnation rate in an area immediately pinpoints it as a region in need of disease control measures. Then, through the cooperation of the inspection staff and local disease control and eradication agencies (both Federal and State), the situation can often be remedied.

In one instance, a team of disease control authorities and poultry inspectors went directly to the farms to find out why condemnations had been high in the area. Their findings and recommendations should help both growers and processors avoid serious economic losses in the future. All that was needed in many cases was increased attention to sanitation, less crowding of the birds, and correction of some other production practices.

Poultry industry and government representatives are now sponsoring

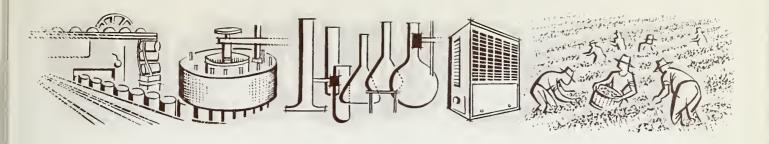
a program to re-emphasize sound production and management practices and eliminate avoidable waste of poultry.

Enforcement of the Poultry Products Inspection Act during its first year of operation emphasized educational aspects. Close check was kept on reported violations and many misunderstandings about the law were cleared up. Processors were aided in complying with the law whenever possible. The few instances of flagrant or repeated violations of the law were referred to the Department of Justice for prosecution.

The poultry industry as a whole cooperated to the fullest extent in putting the PPIA into effect. Industry representatives took the view that routine Federal certification of poultry as a wholesome, sound, and unadulterated food is in keeping with the status that poultry has achieved as a major and increasingly important item in the American diet.



The author is Deputy Director of the Poultry Division of Agricultural Marketing Service.



# The Changing Market

### **Vegetable Consumption**

Consumption patterns for vegetables used in both fresh and processed forms, which 20 years ago were of about equal importance, have in recent years undergone a startling change.

The average person today is buying nearly 12 percent fewer fresh vegetables, over 50 percent more frozen and canned.

Here's what happened. Between 1937-39 and 1956-58, annual consumption of the 10 popular vegetables in fresh form dropped from 51 pounds per person to 40 pounds per person. At the same time, use of these same vegetables in processed form went from 53 to 88 pounds fresh equivalent.

This information was uncovered by an AMS study of consumption patterns for corn, cucumbers, asparagus, lima beans, green peas, snap beans, broccoli, tomatoes, cabbage, and spinach.

Of these, only corn and cucumbers showed an increase in per capita consumption in fresh form. Both also showed substantial increases in processed forms.

Asparagus, on the other hand, suffered a sharp decline in fresh use, but its frozen and canned consumption rose enough to bring its total up considerably higher than in 1937-39.

Fresh lima beans and green peas have nearly disappeared from produce counters. Processed, they are doing a rapid business.

Most of the gain for limas and

all of the increases for green peas are due to the widespread acceptance of the frozen product. Consumption of canned green peas in 1956-58 showed little change from 1937-39, but frozen peas increased from half a pound per person to more than 4 pounds.

People also are eating more snap beans. Overall consumption is up about a tenth from the prewar period. Large increases in canned and frozen beans more than offset a 40-percent slump in the use of the fresh product.

Per capita consumption of broccoli also has increased over the past two decades—by about 68 percent. The rate of frozen consumption is up; fresh consumption down.

Fresh tomatoes, too, have witnessed a decline in per capita consumption, but the use of canned tomatoes and tomato products has increased 65 percent.

Cabbage and spinach are the only items on the list of 10 that suffered a reduction in overall popularity. Total per capita consumption of cabbage is down about a third from the immediate prewar level; total consumption of spinach is down about a sixth.

## More Meat Processing

Meat processing in the United States is big business—and it's getting even bigger.

Production figures published recently by the Agricultural Marketing Service indicate that meat products processed and prepared under Federal inspection in 1959 probably will top the 18-billion-pound output of 1958. Total meat processing was running 11 percent ahead of 1958 during the first 39 weeks of 1959.

Cured and smoked pork, lard, canned products, and sausage are the major meat items processed and prepared. "Sausage" in this inthis instance refers not only to fresh pork sausage but to any finely ground spiced meats stuffed in a casing or container.

Although sausage production does not rank as high in total poundage as the other items listed, it still constitutes a big part of the meat packing industry. More than 2 billion pounds have been processed annually since 1951 in federally inspected plants.

January-September sausage production in 1959 totaled 1,790 million pounds, about 6 percent more than in the corresponding period in 1958.

## Cotton Consumption Up

1959 saw per capita consumption of cotton up about 17 percent from 1958. And, although consumption for 1960 probably will be down slightly, it should keep well above the low level of 1958.

Year-end estimates of the Agricultural Marketing Service place per capita consumption of cotton in 1959 at about 26 pounds.

While cotton consumption was on the upswing, consumption of other fibers also was increasing.

# The Changing Market

(Continued from page 19)

People used—on the average—11 pounds of manmade fibers in 1959, compared with 9.7 pounds in 1958.

Consumption of rayon and acetate also rose sharply. Both of these items were at their highest peak in 1959 and the highest on record for noncellulosic fibers.

In terms of cotton equivalent, consumption of manmade fibers has shown an even sharper increase. The 1959 figure is about 17 pounds, compared with 15 pounds in 1958.

should be about the same or a little above those of a year before.

Interestingly enough, the value of meat consumed per person in 1959 was about the same as in 1958. Even though disposable personal incomes went up, the percentage of the consumer dollar spent for meat declined—from 5 percent in 1958 to 4.8 percent in 1959. It appears likely that in 1960 this trend will continue.

#### Lower Retail Meat Prices

Retail meat prices probably will average slightly less in 1960 than in 1959, according to the Agricultural Marketing Service.

The reason: There'll be slightly more meat animals produced and slaughtered during the coming year.

Beef supplies will be largely from fed beef during the first half of the year and nonfed beef in the second half. This pattern of supply should bring down the retail price of higher priced beef cuts during the winter and spring of 1960. It will reduce lower priced cuts during the summer and fall. For the year, the lower priced cuts will probably show the greater decline.

Prices of pork cuts at retail during much of the first half of 1960 are expected to be lower than they were in each of the corresponding months of 1959. During the second half of the coming year, prices

## **Shorter Marketing Channels**

(continued from page 9)

wholesalers as a group have not declined despite direct buying by retail food chains. Although many have had to adjust their business to changed conditions, grocery, confectionery, and meat wholesalers actually increased their sales between 1957 and 1958.

Since 1948, the food wholesaling business has experienced a general increase in dollar sales. Although rising prices account for part of this increase, the quantity of products also must have increased.

Sales to hotels, restaurants, institutions, and buyers other than food stores account for a larger proportion of the wholesale food trade now than in earlier years. As incomes go up and more people work away from home, wholesalers should find these establishments among their best customers.

## **Crop Production Report**

Farming is filled with decisions. And decisions made by farmers are important to those concerned with marketing farm products.

One of the toughest decisions a farmer must make is: What and how much should I plant?

A report aimed at helping answer that question is released each March by the U.S. Department of Agriculture. It is the Crop Production Report on prospective plantings—usually called the "March Intentions Report."

This report is based on information given by some 100,000 farmers who fill in questionnaires sent out late in February by the Federal-State Crop and Livestock Reporting Service in their States.

The crop reporters' replies are reviewed and summarized, analyzed and interpreted by AMS State statisticians. These State figures are then mailed along with the recommendations of the statisticians to Washington, D. C. Here they are reviewed by the Crop Reporting Board which prepares the national report on planting intentions.

Sixteen crops are covered in the report—corn, wheat, oats, barley, flaxseed, rice, sorghums, potatoes, sweetpotatoes, tobacco, dry edible beans, dry field peas, soybeans, peanuts, hay, and sugar beets.

In this way, the marketing man gets some idea of the size of the supply during the coming year.